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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,638

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Paul Francis Clarke

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EXAMINER

HOOVER, MATTHEW

ART UNIT

PAPER NUMBER

4122

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/532,638	<b>Applicant(s)</b> CLARKE, PAUL FRANCIS	
	<b>Examiner</b> MATTHEW HOOVER	<b>Art Unit</b> 4122	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/22/05, 10/31/05</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ning (GB 2294861) in view of Davenport (US 3690326) and Mentzel et al (US 5423336).

Ning teaches a filter for a cigarette comprising two individual filters (figure 1 #1 & 2) a cavity between them (figure 1) and a filter wrapping (figure 1 #9). It also teaches that the filter wrapper is made of China cyprus paper, which is highly permeable and allows for ventilation (page 6 lines 2-3). The wrapper also can have holes drilled in it to vent the cavity to the air (page 3 lines 3-14). Ning also teaches that a tobacco rod (figure 1 #7) is joined to a filter (figure 1 #1) and this method is known in the art as ring tipping . The ring tipping overlap has holes in it to provide ventilation laterally through

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the cavity (figure 1 #4). The filter has pathways through the cypress paper and the tipping overwrap going vertically and horizontally to provide adequate ventilation for the cavity. The filter wrapping, tipping overwrap and cavity are all in ventilating register with each other (figure 1 and page 3 lines 3-14 and page 6 lines 2-3).

Ning does not teach the tar retention or the draw resistance of the two filters.

Davenport teaches that a cellulose acetate filter has a draw resistance of 50.0 mmW.G. and a tar retention rate of 40% (column 5 lines 25-40).

It would be obvious to combine these two references because they are both smoking filters made of cellulose acetate. They both perform the same function and are made of the same materials. The motivation for combining the filters would be to create a filter system with specific values in order to filter out the desired amount of tar, which is cancerous, while still providing adequate draw resistance to make smoking enjoyable to the user.

Mentzel teaches a cellulose acetate filter with a draw resistance of less than 50 mmW.G. and a tar retention of less than 30% (column 2 lines 33-35).

It would be obvious to combine these two references because they are both smoking filters made of cellulose acetate. They both perform the same function and are made of the same materials. The motivation for combining the filters would be to create a filter system with specific values in order to filter out the desired amount of tar, which is cancerous, while still providing adequate draw resistance to make smoking enjoyable to the user.

In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

It would be obvious to combine the two filters to create a two filter system because two filters would allow the system to operate much more efficiently. The first filter sifts out large pieces of tar but allows smaller ones through. The second filter further filters out the tar so only the desired amount goes through. Having only one filter increases the chance of the filter clogging, not allowing some of the desired tar and gas to get through to the user and creating a nondesired experience for the user.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ning (GB 2294861) in view of Davenport (US 3690326), Mentzel et al (US 5423336) and Banerjee et al (US 5839449).

The teachings, motivations and reasons to combine for Ning, Davenport and Mentzel are discussed in the argument for claims 1-14.

The combined references do not teach the CO delivery or CO/tar ratio of the cellulose acetate dual filter.

Banerjee teaches that a dual filter cigarette made of cellulose acetate has a CO delivery of 4.9 mg and a CO/tar ratio of 0.57 (column 5 lines 1-14).

It would be obvious to combine these two references because they are both smoking filters made of cellulose acetate. They both perform the same function and are made of the same materials. "Since Ning, Davenport, Mentzel, and Banerjee combine to

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teach the same composition as claimed, the properties of the Ning, Davenport, Mentzel, and Banerjee composition would intrinsically be the same as claimed. If there is any difference between the product of Ning, Davenport, Mentzel, and Banerjee and the product of the instant claims the difference would have been minor and obvious.

“Products of identical chemical composition can not have mutually exclusive properties.”

A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01(I) , *In re Best*, 562 F2d at 1255, 195 USPQ at 433, *Titanium Metals Corp v Banner*, 778 F2d 775, 227 USPQ 773 (Fed Cir 1985), *In re Ludtke*, 441 F2d 660, 169 USPQ 563 (CCPA 1971) and *Northam Warren Corp v D F Newfield Co*, 7 F Supp 773, 22 USPQ 313 (EDNY 1934)."

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ning (GB 2294861) in view of Davenport (US 3690326), Mentzel et al (US 5423336) and Hayes et al (US 4492240).

The teachings, motivations and reasons to combine for Ning, Davenport and Mentzel are discussed in the argument for claims 1-14.

The combined references do not teach that a plurality of filters can be joined end-to-end in mirror image relationship.

Hayes teaches that a plurality of filters can be joined in mirror image relationship (column 10, lines 31-37, claim 10).

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It would be obvious to combine these two references because they are both smoking filters made of cellulose acetate. They both perform the same function and are made of the same materials. It would be expected that if a filter can be arranged end-to-end in a mirror like manner, all filters with similar properties would be able to do the same. The addition of multiple filters is considered duplication of parts. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pera (US 20020148478, dual filter), Schluter et al (US 20050076927, ventilated smoking article), Jupe et al (US 20020166563, dual filter), Holst et al (US 4015611, cellulose acetate filter) and Heim et al (US 4193412, ventilated filter).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW HOOVER whose telephone number is (571)270-7663. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571)272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MH/  
Patent Examiner

/Timothy J. Kugel/  
Primary Examiner, Art Unit 1796